

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 1/(17)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier:

MOL Dynamic Star PC 0W-30 synthetic motor oil

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: synthetic motor oil.

Uses advised against: no data.

1.3. Details of the supplier of the safety data sheet:

MOL-LUB Lubricant Production Distribution and Service Ltd.

H-2931 Almásfüzitő, Fő út 21., Hungary

Phone / Fax: +36 34 526 330 / +36 34 526 391

E-mail: kenoanyag@mol.hu

Request SDS of:

MOL-LUB Lubricant Production Distribution and Service Ltd.

Customer Service Center

H-2931 Almásfüzitő, Fő út 21., Hungary

Phone / Fax: +36 80 201 296 / +36 34 348 010

Responsible for SDS:

MOL LUB Kft.

Tel: +36 80 201 296

E-mail: EBKHelpdesk@MOL.hu

1.4. Emergency telephone number

Emergency telephone (on workdays: 07-15²⁰ h (CET)): +36 34 526 210

Health Toxicological Information Service (ETTSZ 1097 Budapest, Albert Flórián út 2-6.)

Tel.: +36 80 201 199 (0-24 h, free number, can only be called from Hungary). +36 1 476 6464 (0-24 h, can be called for a normal fee - also from abroad)

National Health Toxicological Information Service:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Hazard Class and Category: Hazard statement:

Aquatic Chronic 3. H412 Harmful to aquatic life with long lasting

effects.



according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 2/(17)

2.2. Label elements

Product identification: Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Hazardous components: -

GHS Pictogram: Not required. Signal word: Not required.

Hazard statement:

H412 Harmful to aquatic life with long lasting effects.

Supplemental hazard information:

EUH208 Contains C14-16-18 Alkyl phenol. May produce an allergic reaction.

Precautionary statements – General: -

Precautionary statements – Prevention:

P273 Avoid release to the environment.

Precautionary statements – Response: -

Precautionary statements – Storage: -

Precautionary statements – Disposal:

P501 Dispose of contents/container in accordance with national regulation.

Other liabilities for labelling:

Tactile Warning and child-resistant fastening: Not required.

Transport classification: see section 14.

2.3. Other hazards

The product does not contain any PBT or vPvB substance according to annex XIII of regulation (EC) 1907/2006, at a concentration of 0.1% or more.

The product does not contain any substance with endocrine disrupting properties, at a concentration of 0.1% or more.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical description: Mixture of refined mineral base oils and hydrotreated neutral oil

containing additives.



according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 3/(17)

$Component(s) \, / \, Hazardous \, component(s) \text{:} \\$

Name	EC	CAS	Hazard classes and	Hazard	Conc.
	number	number	cat.	statements	% (m/m)
Dec-1-ene, trimers, hydrogenated REACH Regist. Nr.: no data	500-393-3	157707-86-3	Asp. Tox. 1 (Note L)	H304	max. 40
Lubricating oils	276-738-4	72623-87-1	Asp. Tox. 1	H304	max. 40
(petroleum)	270-730-4	72023-07-1	(Note L)	11304	111ax. 40
C20-50, hydrotreated			(Note L)		
neutral oil-based					
REACH Registr. Nr.:					
01-2119474889-13					
Distillates (petroleum), hydrotreated heavy paraffinic REACH Registr. Nr.: 01-2119484627-25	265-157-1	64742-54-7	Asp. Tox. 1 (Note L)	H304	max. 30
1-Decene, homopolymer, hydrogenated REACH Registr. Nr.: 01-2119486452-34	500-183-1	68037-01-4	-	-	max. 25
Mineral oil raffinate *		mixture	Asp. Tox. 1 (Note L)	H304	max. 11
Calcium branched alkyl phenate sulphide REACH Registr. Nr.: no data	polymer	-	Aquatic Chronic 4	H413	max. 2.0
Bis(nonylphenyl)amine REACH Registr. Nr.: 01-2119488911-28	253-249-4	36878-20-3	Aquatic Chronic 4	H413	max. 2.0
C7-9-alkyl 3-(3,5-di-tert- butyl-4- hydroxyphenyl) propionate REACH Registr. Nr.: 01-0000015551-76	406-040-9	125643-61-0	Aquatic Chronic 4	H413	max. 2.0
Alcohols, C12-16, ethoxylated REACH Registr. Nr.: no data	500-221-7	-	Eye Dam. 1 Aquatic Acute 1 Aquatic Chronic 3	H318 H400 (M=1) H412	max. 0.2



according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 4/(17)

		,			
Name	EC	CAS	Hazard classes and	Hazard	Conc.
Name	number	number	cat.	statements	% (m/m)
Molybdenum, bis(2-	273-245-6		Aquatic Chronic 2	H411	max. 0,2
ethylhexyl)carbamodithioa					
te bis(2-					
ethylhexyl)carbamothioate					
oxo thioxo complexes					
REACH Registr. Nr.:					
no data	275 247 6		A .: C1 : 2	TT 4 1 1	0.2
Molybdenum,	275-347-6		Aquatic Chronic 2	H411	max. 0,2
bis(ditridecylcarbamodithi					
oato)dimuoxodioxo-di-,					
sulfurized					
REACH Registr. Nr.:					
no data	021 469 2		Claire Carra 1D	11217	ر 12
C14-16-18 Alkyl phenol	931-468-2		Skin Sens. 1B	H317	<0,13
REACH Registr. Nr.:			STOT RE 2	H373	
01-2119498288-19	210 154 2	121158-58-5	Skin Corr. 1C	11214	ر ۱
Phenol, dodecyl-,	310-154-3	121158-58-5		H314	< 0.1
branched			Eye Dam. 1	H318	
REACH Registr. Nr.:			Repr. 1B	H360F	
01-2119513207-49			Aquatic Acute 1	H400 (M=10)	
			Aquatic Chronic 1	H410 (M=10)	

^{*}Contains one or more of the following substances: 265-157-1; 265-158-7; 265-159-2, 265-169-7.

Note L:

The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method" Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class

The full text of each relevant H- phrase and Hazard classes and cat. see in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information: Never give anything by mouth to an unconscious person, or never

induce vomiting.

MOL-LUB Kft.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 5/(17)

Inhalation: Remove the affected person to fresh air. If rapid recovery does not occur, obtain

medical attention.

Skin contact: Remove contaminated clothing. Wash skin with large amounts of water, use

soap. In the event of a complaint, get medical attention.

Eye contact: Flush eyes with plenty of water for 10-15 minutes. In the event of a complaint,

get medical attention.

Ingestion: If swallowed, give water. Do not induce vomiting. Get medical attention.

Protection of first-aid person: No individual specifications.

4.2. Most important symptoms and effects, both acute and delayed

Prolonged and/or repeated contact may cause irritation on skin or in eyes depending on individual sensitivity.

May produce an allergic reaction.

4.3. Indication of any immediate medical attention and special treatment needed Not required.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Foam, carbon dioxide, dry chemical powder, water fog (trained personnel only).

Unsuitable extinguishing media:

Full water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:

On burning, carbon monoxide, carbon dioxide, sulphur oxides, phosphor oxides, zinc oxide, various hydrocarbons and soot can be formed.

5.3. Advice for fire-fighters

Special protective equipment:

According to the existing fire-fighting regulations, respiratory protection.

Further information:

Collect contaminated fire-fighting water separately. It must not enter the sewage system.

Contaminated extinguishing water must be disposed of in accordance with official regulations.

MOL-LUB Kft.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 6/(17)

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: see Section 8.

Danger of slipping on leaked out/spilled product.

6.2. Environmental precautions:

Confine spills to prevent material from entering sewers, watercourses, drains and into soil Notify relevant authority.

6.3. Methods and material for containment and cleaning up

On soil: All kind of ignition sources should be removed. Contain spilled liquid with

sand, earth or other suitable absorbents. Recover free liquid by pumping.

Dispose of according to local regulations.

On water: Confine the spillage. Remove from surface by skimming or suitable

absorbents. Notify local authorities according to regulations.

6.4. Reference to other sections

Personal precautions: see section 8.

Waste treatment methods: see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Keep general measures applied for normal operations with lubricants and flammable materials.

Keep away from radiant heat and open flame.

Avoid contact with skin and eyes. Avoid prolonged breathing of oil vapours or mists.

Wash hands before breaks and at end of work.

Take off contaminated clothing and wash it before reuse.

When using do not eat, drink or smoke. Avoid splashing the product.

Handling temperature: no data.

7.2. Conditions for safe storage, including any incompatibilities

Storage facilities must comply with regulations for storing of flammable liquids.

Store in dry, well-ventilated place in original, closed containers.

Keep away from radiant heat, open flame and strong oxidizing agents.

Storage temperature: max. 40°C.

7.3. Specific end use(s)

Synthetic motor oil.

MOL-LUB Kft.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 7/(17)

SECTION 8: Exposure controls / personal protection

Engineering control measures:

Not required.

8.1. Control parameters:

Mineral oil mist: TWA: 5 mg/m³; STEL: 10 mg/m³, for oil mist, vapour excluded

(ACGIH).

Method of testing, recommended: NIOSH 5026

8.2. Exposure controls

Personal protection:

(a) Eye/face protection Where splashing is possible, wear safety glasses (EN 166).

(b) Skin protection

(i) Hand protection Oil resistant gloves (EN 374, Breakthrough time > 480 min,

PK power level: 6; PR flow rate: 0).

Note: Manufacturer's directions for use and the conditions of

application should be observed.

(ii) Other Protective clothing (oil resistant).

exposure-limits respiratory protection with particle-filter is

not available

recommended.

(d) Thermal hazards No data.

Environmental exposure controls:

Do not discharge into drains/surface waters/groundwater.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Physical state: liquid

b) Colour: brown, clear

c) Odour: characteristic, not unpleasant

d) Melting point/freezing point (Pour point) (ISO 3016): typ. -48°C

e) Boiling point or initial boiling point and boiling range

(DIN 51356):

f) Flammability: combustible

g) Lower and upper explosion limit: not explosive h) Flash point (COC) (EN ISO 2592): typ. 220°C

i) Auto-ignition temperature: not available

MOL-LUB Kft.

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 8/(17)

Decomposition temperature: not available <u>j</u>) k) not applicable

1) Kinematic viscosity (EN ISO 3104)

> at 40°C: typ. $54.3 \text{ mm}^2/\text{s}$ at 100°C typ. $9.7 \text{ mm}^2/\text{s}$

m) Solubility

Solubility in water: practically insoluble in water gasoline, kerosene, toluene, etc. Solubility in other solvents:

n) Partition coefficient n-octanol/water (log value): not available Vapour pressure at 20°C: negligible

p) Density and/or relative density at 15°C (DIN EN ISO

12185): $0.835 - 0.855 \text{ g/cm}^3$ Relative vapour density: not available

q) Particle characteristics: not available

9.2. Other information

Oxidizing properties: not oxidize Heating value: inf. 38 000 kJ/kg

Stability and reactivity **SECTION 10:**

10.1. Reactivity Dangerous reactivity not known.

10.2. Chemical stability No decomposition if stored and handled properly.

10.3. Possibility of hazardous reactions Not known.

10.4. Conditions to avoid Direct heat or ignition sources. 10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products No dangerous decomposition products are formed under

normal conditions. Hazardous combustion products: See

Section 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity: Based on available data, the classification criteria are not met

Oral: > 2000 mg/kgLD₅₀ (rat) (based on components) (based on components) Dermal: LD₅₀ (rabbit) > 2000 mg/kg



according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 9/(17)

Components:

Dec-1-ene, trimers, hydrogenated (CAS: 157707-86-3)

Oral: LD_{50} (rat) > 2000 mg/kg

1-Decene Homopolymer, hydrogenated (CAS: 68037-01-4)

Oral: LD_{50} (rat) > 5000 mg/kg

Inhalation: LC_{50} (rat) >5.2 mg/L 4 h (dust / mist)

Lubricating oils (petroleum) C20-50, hydrotreated neutral oil-based (CAS: 72623-87-1)

Oral: LD_{50} (rat) > 5000 mg/kg Dermal: LD_{50} (rabbit) > 2000 mg/kg Inhalation: LC_{50} (rat) > 5.53 mg/L

Distillates (petroleum), hydrotreated heavy paraffinic (CAS: 64742-54-7)

Oral: LD_{50} (rat) > 5000 mg/kg Dermal: LD_{50} (rabbit) > 2000 mg/kg Inhalation: LC_{50} (rat) > 5.53 mg/L

C14-16-18 Alkyl phenol (EC: 931-468-2)

Oral: LD_{50} (rat) 2000 mg/kg Dermal: LD_{50} (rat) 2000 mg/kg

Skin corrosion/irritation: Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. Serious eye damage/irritation: Respiratory or skin sensitisation: Based on available data, the classification criteria are not met. Germ cell mutagenicity: Based on available data, the classification criteria are not met. Carcinogenicity: Based on available data, the classification criteria are not met. Reproductive toxicity: Based on available data, the classification criteria are not met. STOT-single exposure: Based on available data, the classification criteria are not met. STOT-repeated exposure: Based on available data, the classification criteria are not met. Aspiration hazard: Based on available data, the classification criteria are not met.

11.2. Information on other hazards

The product does not contain any substance with endocrine disrupting properties, at a concentration of 0.1% or more.

SECTION 12: Ecological information

12.1. Toxicity Harmful to aquatic life with long lasting effects.

Components:

Dec-1-ene, trimers, hydrogenated (CAS: 157707-86-3)

Fish: $LL_{50} > 1000 \text{ mg/L} 96 \text{ h},$

similar substance



according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 10/(17)

Daphnia:	EL ₅₀	> 1000	mg/L	
				similar substance
Daphnia:	NOELR	125	mg/L	21 days,
				similar substance
Aquatic plants:	NOELR	1000	mg/L	
				similar substance
Microorganism:	NOEC	2	mg/L	28 days,
				similar substance
1-Decene Homopolymer, hydrogenated (C.	AS: 68037-	.01-4)		
Fish:	LC ₅₀		mø/L	96 h
Daphnia (Daphnia magna):	EC ₅₀	> 1 000	_	
Daphnia (Daphnia magna):	EC_{50}			21 days
Daphnia (Daphnia magna):	NOEC		_	21 days
Green Algae (Scenedesmus	NOLE	123	mg/ L	21 days
quadricauda)	EC ₅₀	>1000	mø/L	3 h
Green Algae (Scenedesmus	L C30	>1000	mg/L	<i>3</i> II
quadricauda)	NOEC	>1000	mσ/I	3 h
,			Ū	
Lubricating oils (petroleum) C20-50, hydr				S: 72623-87-1)
Fishes:	LC_{50}	> 100	mg/L	
Distillates (petroleum), hydrotreated heavy	y paraffinic	(CAS: 6474	12-54-7	")
Fish:	LC_{50}			,
Daphnia:	EC_{50}		_	
Other aquatic organisms:	EC_{50}	> 100	_	
Other living beings:	TLM		mg/L	
			υ	
Calcium branched alkyl phenate sulphide (/Т	061
Fish:	LC ₅₀	>1000	_	
Daphnia (Daphnia magna):	EC ₅₀	> 1000	_	
Green Algae:	EC_{50}	>1000	_	
Microorganisms (sludge):	EC_{50}	>1000	mg/L	0,1 day
Mineral oil raffinate (CAS: mixture)				
Fish:	LC_{50}	> 100	mg/L	96 h
Daphnia (Daphnia magna):	EC_{50}	> 10 000	_	48 h
Daphnia (Daphnia magna):	EC_{50}		_	21 days
Daphnia (Daphnia magna):	NOEC	> 10	mg/L	21 days
Green Algae (Scenedesmus			J	·
quadricauda)	EC_{50}	>100	mg/L	72 h
-			J	



according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 11/(17)

C14-16-18 Alkyl phenol (EC: 931-468-2)			
Fish (Cyprinus carpio):	LC_{50}	> 100 mg/L	96 h (OECD 203
Daphnia (Daphnia magna):	EC_{50}	> 100 mg/L	
Algae (Pseudokirchinella subcapitata):	EC_{50}	> 100 mg/L	
Algae (Pseudokirchinella subcapitata):	NOEC	100 mg/L	
Bis(nonylphenyl)amine (CAS: 36878-20-3	3)		
Fish (zebrafish):	LC_{50}	> 100 mg/L	96 h
Daphnia:	EC_{50}	> 100 mg/L	48 h
Green Algae:	EC_{50}	600 mg/L	72 h
Microorganisms (activated sludge):	EC_{50}	>1000 mg/L	0.1 day
Alcohols, C12-16, ethoxylated (EC: 500-2	221-7)		
Fish:	LC_{50}	> 1.0-10 mg/L	96 h
Daphnia:	EC_{50}	> 0.1-1.0 mg/L	
Daphnia:	NOEC	> 0.1-1.0 mg/L	•
Green Algae:	EC_{50}	> 0.1-1.0 mg/L	72 h
Molybdenum, bis(2-ethylhexyl)carbamodu	thioate bis(2-ethylhexyl)carba	mothioate oxo thiox
complexes (EC: 273-245-6)			
Fish (Oncorhynchus mykiss):	LC_{50}	400 mg/L	
Daphnia (Daphnia magna):	EC_{50}	15 mg/L	48 h
Green Algae (Scenedesmus			
quadricauda):	EC_{50}	3.4 mg/L	
Sludge:	EC_{50}	>1000 mg/L	0,1 days
Molybdenum,bis (ditride cylcar bamodithic		•	
Fish (Oncorhynchus mykiss):	LC_{50}	400 mg/L	
Daphnia (Daphnia magna):	EC_{50}	15 mg/L	48 h
Green Algae (Scenedesmus	T.C	2.4 %	50.1
quadricauda):	EC_{50}	3.4 mg/L	
Sludge:	EC_{50}	>1000 mg/L	0,1 day
Phenol, dodecyl-, branched (CAS: 12115	8-58-5)		
Fish (Fat-headed carp):	LC_{50}	40 mg/L	
Daphnia:	EC_{50}	0.037 mg/L	
Shrimp (Mysidopsis Bahia):	EC_{50}	>0.58 mg/L	
Daphnia:	EC_{50}	0.0079 mg/L	•
Daphnia:	NOEC	0.0037 mg/L	•
Green Algae:	EC_{50}	0.36 mg/L	
Microorganisms (activated sludge):	EC_{50}	>1000 mg/L	0.1 day



according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 12/(17)

12.2. Persistence and degradability

Biodegradability:

Mineral oil raffinate

1-Decene Homopolymer, hydrogenated (CAS:

68037-01-4)

 ${\it Calcium\ branched\ alkyl\ phenate\ sulphide\ (CAS:$

polymer)

Distillates (petroleum), hydrotreated heavy

paraffinic (CAS: 64742-54-7)

Bis(nonylphenyl)amine (CAS: 36878-20-3)

Alcohols, C12-16, ethoxylated (EC: 500-221-7)

Molybdenum, bis(2-ethylhexyl)carbamodithioate bis(2-ethylhexyl)carbamothioate oxo thioxo

complexes (EC: 273-245-6)

Molybdenum, bis(ditridecylcarbamodithioato)di-.mu.-oxodioxo-di-, sulfurized (EC: 275-347-6)

Phenol, dodecyl-, branched (CAS: 121158-58-5)

12.3. Bioaccumulative potential

 ${\it 1-Decene\ Homopolymer,\ hydrogenated\ (CAS:}$

68037-01-4)

Calcium branched alkyl phenate sulphide (CAS:

polymer)

Bis(nonylphenyl)amine (CAS: 36878-20-3)

C7-9-alkyl 3-(3,5-di-tert-butyl-4- hydroxyphenyl)

propionate (CAS: 125643-61-0)

Molybdenum, *bis*(2-ethylhexyl)carbamodithioate

bis(2-ethylhexyl)carbamothioate oxo thioxo

complexes (EC: 273-245-6)

complexes (EC. 273-243-0)

Molybdenum, bis(ditridecylcarbamodithioato)di-

.mu.-oxodioxo-di-, sulfurized (EC: 275-347-6)

Phenol, dodecyl-, branched (CAS: 121158-58-5)

No data available.

31% (28 days, OECD TG 301 B)

2.0% (28 days, OECG TG 301 D)

4.7-10.8 (28 days, OECG TG 301 B)

ca. 30 % (28 days, OECD 301 F).

Not easily, but inherently degradable. 0.0 % (28 days, OECD TG 301 B)

60 % (28 days, OECD TG 301 F)

6,0% (28 days), not easily degradable.

6,0% (28 days), not easily degradable.

25 % (28 days, OECD TG 301 B)

No data available.

 $LogKow: >6.5 (20^{\circ}C)$

BCF: 2.2; LogKow: 11.08

BCF: 1584.89;

BCF: 260

Log Kow: 4,64

Log Kow: 4,64

BCF: 794.33; LogKow: 7.14

12.4. Mobility in water

Mobility in soil

Floats on water.

Absorbs in soil.



according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 13/(17)

12.5. Results of PBT and vPvB assessment Does not contain PBT and vPvB

substances, at a concentration of 0.1% or

more.

12.6. Endocrine disrupting properties

The product does not contain any

substance with endocrine disrupting properties, at a concentration of 0.1% or

more.

12.7. Other adverse effects

Heavy metal content: None.

PCT, PCB and other chlorinated hydrocarbons:

None.

Water hazard class (German): WGK 1 (Classification by AwSV)

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Wastes of the product or used oil should be treated as hazardous waste.

Waste Identification Code: 13 02 05*

Mineral-based non-chlorinated engine, gear and lubricating oils.

Waste Identification Code: 13 02 06* Synthetic engine, gear and lubricating oils.

Disposal must be in compliance with national and local regulations.

Recommended waste treatment method: incineration

Packaging disposal:

Containers with product residue should also be treated as hazardous waste according to national and local disposal regulations.

Waste Identification Code: 15 01 10*

packaging containing residues of or contaminated by dangerous substances

Disposal must be in compliance with national and local regulations.

Wastewater:

Quality of wastewater emitted to natural water must comply with national and local regulations.



according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 14/(17)

Care should be taken in any case to ensure compliance with EC, national and local regulations. It is the responsibility of the user to know all relevant national and local regulations.

SECTION 14: Transport information

Land transport:

Road/ Railway ADR/RID: Not classified.

14.1. UN number or ID number Not classified.

14.1. UN proper shipping name Not classified.

Not classified.

14.3. Transport hazard class(es)

Not classified.

14.4. Packing group Not classified.

14.5. Environmental hazards Not classified.

14.6. Special precautions for user Not classified.

14.7. Maritime transport in bulk according to IMO instruments Does not apply.

Waterways:

Inland waterways/ Sea transport ADN/IMDG: Not apply to the product.

Air transport: ICAO / IATA: Not apply to the product.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture This safety data sheet has been prepared according to Regulation (EC) No 1907/2006 (mod.: 2020/878/EU) and to Regulation (EC) 1272/2008.

Seveso category: not classified.

15.2. Chemical safety assessment.

not available

SECTION 16: Other information

The information given in this data sheet is based on our best knowledge at the time of publication. The information is related only to this product and is intended to assist its safe transport, handling and use. The given physical and chemical parameters describe the product only for the purpose of safety requirements and therefore should not be construed as guaranteeing any specific property of the product or as being part of a product specification or any contract.



according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 15/(17)

The manufacturer or supplier shall not take responsibility for any damages from the use other than recommended or other misuse of the product. It is the responsibility of the user to keep regulatory precautions and observe recommendations for safe use of the product.

Classification for mixtures and used evaluation method according to regulation 1272/2008/EC (CLP)

Aquatic. Chronic 3 H412 calculation method

The full text of each relevant H-phrase and Hazard classes and cat. in Section 3.:

H304 May be fatal if swallowed and enters airways.
 H314 Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.

H318 Causes serious eye damage H360F May damage fertility.

H373 May cause damage to organs through prolonged or repeated exposure

through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.
 H411 Toxic to aquatic life with long lasting effects.
 H412 Harmful to aquatic life with long lasting effects.
 H413 May cause long lasting harmful effects to aquatic life.

Asp. Tox. 1 Aspiration hazard Category 1

Skin Corr. 1C Skin corrosion/irritation Category 1C Skin Sens. 1B Respiratory/skin sensitization Category 1B Eye Dam. 1 Serious eye damage/eye irritation Category 1

Repr. 1B Reproductive toxicity Category 1B

STOT RE 2 Specific target organ toxicity – repeated exposure Category 2
Aquatic Acute 1 Hazardous to the aquatic environment, Acute Category 1
Aquatic Chronic 1 Hazardous to the aquatic environment, Chronic Category 1
Hazardous to the aquatic environment, Chronic Category 2
Hazardous to the aquatic environment, Chronic Category 3
Aquatic. Chronic 4 Hazardous to the aquatic environment, Chronic Category 4

Legend:

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland

Waterways





according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

MOL-LUB Kft.

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Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 16/(17)

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE Acute Toxicity Estimate
BCF Bioconcentration Factor
BOD Biological Oxygen Demand

Bw Body Weight

C&L Classification and Labelling CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging (1272/2008/EC)
CMR Carcinogenic, Mutagenic or toxic to Reproduction

COD Chemical Oxygen Demand
CSA Chemical Safety Assessment
CSR Chemical Safety Report
DMEL Derived Minimal Effect Level
DNEL Derived No Effect Level
ECHA European Chemicals Agency
Ecx Effective Concentration x%

ErC50 EC50 in terms of reduction of growth rate

 $\begin{array}{ll} Edx & Effective\ Dose\ x\% \\ EC & European\ Community \end{array}$

EC number European Community number

ELINCS European List of Notified Chemical Substances

ES Exposure Scenario

ESIS European Chemical Substances Information System IARC International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods

LCx Lethal Concentration x%

LDx Lethal Dose x%

LOAEC Lowest Observed Adverse Effect Concentration

LOAEL Lowest Observed Adverse Effect Level LOEC Lowest Observed Effect Concentration

LOEL Lowest Observed Effect Level NOEC No observed effect concentration

NOEL No observed effect level NLP No-Longer Polymer

NOAEL No Observed Adverse Effect Level

OECD Organisation for Economic Cooperation and Development

PBT Persistent Bioaccumulative and Toxic
PNEC Predicted No-Effect Concentration

ppm parts/million

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals

RID Regulations concerning the International carriage of Dangerous Goods by Rail

SVHC Substance of Very High Concern

UVCB substance of unknown or variable composition, complex reaction products or biological

materials

VOC Volatile organic compounds

vPvB Very Persistent and very Bio-accumulative



MOL

according to regulation (EC) No 1907/2006 (REACH) and 1272/2008/EC

Trade name: MOL Dynamic Star PC 0W-30 synthetic motor oil

Version: 5 Latest revision: 03. 06. 2024 Date of issue: 17. 05. 2016 Page: 17/(17)

Revision Indicators: Section Subject of change Date Version 3 Composition/information on ingredients 13.03.2019 9 Physical and chemical properties 11 Toxicological information **Ecological information** 12 1-16 Other corrections Composition/information on ingredients 3 30. 04. 2020 3 9 Physical and chemical properties 11 Toxicological information 12 **Ecological information** Revision modification according to 2020/878/EU 1-16 06.01.2023 4 Full revision due to composition change Full revision due to composition change 03. 06. 2024 1-16 5